

REMARKS

In the November 29, 2005 Office Action, the Examiner noted that claims 1-3, 37-39 and 41-46 were pending in the application; claims 1-3, 37-39 and 43-45 were withdrawn from consideration; claim 46 was allowed; and claims 41 and 42 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent 5,649,021 to Matey et al. (Reference A). Claims 1-3, 37-39 and 41-46 remain in the case. The rejections are traversed below.

Prior Art: U.S. Patent 5,649,021 to Matey et al.

The Matey et al. patent is directed to detection of an object for instrument control, particularly a cutting tool 20 (Fig. 1) used in surgery. A marker 22 on the tool is observed by "a viewing instrument such as an endoscope, arthroscope or laparoscope" (column 2, lines 64-65). An "interlock system 10 designed for a surgical cutting tool 20 uses color to detect the presence of the tool 20 during a laparoscopy procedure" (column 3, lines 1-3) to prevent a surgeon "from activating the generator 30 supplying power to the tool 20 unless the tool 20 ... is in the field of view 42 of the laparoscope 40 used to view the procedure, as monitored by an imager 50, such as a color TV camera" (column 3, lines 4-8). Detection of the tool requires that "either a blue or green marker 22 occupies at least 1.5% of the field of view of the camera, [because] the signal to noise ratio is sufficient so that the probability of detection for blue and green markers is greater than 99%" (column 4, lines 50-54).

Rejections under 35 U.S.C. § 103(a)

In rejecting claim 41, it was asserted that Matey et al. discloses "extracting a remaining part of the unicolor pattern based on the threshold" (claim 41, last line) at column 4, lines 50-55. However, as indicated in the final quotation in the summary of Matey et al. in the preceding section, this portion of Matey et al. only describes how much of the field of view of the camera in the disclosed embodiment has to contain one of two colors used as the markers to have greater than 99% detection accuracy. There is nothing in the statement quoted above that suggests a secondary extraction operation of "a remaining part of the unicolor pattern based on the threshold" as recited on the last line of claim 41. Thus, the present invention provides a benefit unavailable from the system disclosed by Matey et al. that "even if there is a local color variance, a part of a pattern forming a title can be prevented from being lost by extracting the pattern as a unicolor area" (application, page 150, lines 6-9). For the above reasons, it is submitted that claim 41 patentably distinguishes over Matey et al.

In the rejection of claim 42, it was acknowledged that "Matey does not teach the feature of dividing the image into rectangles, obtaining variances of each rectangle and obtaining a level color, i.e. a specific color" (Office Action, page 3, lines 15-17). However, it was asserted that these features "would have been obvious to one skilled in the art ... since variance and specific color extraction is taught by Matey et al." (Office Action, page 3, last 4 lines).

More than an assertion of obviousness to the Examiner is required for a finding of obviousness. As stated at the beginning of MPEP § 2144, the "rationale to modify ... the prior art ... may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law." The Office Action does not clearly indicate that any of these were used. If the intent of the Examiner was to rely on "knowledge generally available to one of ordinary skill in the art," the Examiner is reminded that "[i]t is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection was based" (MPEP § 2144.03(E)). Therefore, the Examiner is respectfully requested to provide "some form of evidence in the record to support an assertion of common knowledge" in accordance with MPEP § 2144.03(B).

Even if it is common to divide "an input image into a matrix of rectangular picture areas" (claim 42, line 2) in systems that attempt to recognize content of an image, as opposed to merely color, as taught by Matey et al., such knowledge would not make modification of Matey et al. obvious. Any knowledge in the prior art regarding dividing an image into rectangles for the purpose of a "labeling process" (claim 42, line 5) does not make modification of the method taught by Matey et al. obvious, because there is no suggestion of a "labeling process" in Matey et al. Instead, the system taught by Matey et al. uses "imager 50 [which] generates video signals V representing a color image of a defined area within the field of view 42 of laparoscope 40" (column 3, lines 12-14) and then, "color separator 60 processes the video signals V to detect the colors in the image represented by the video signals" (column 3, lines 22-24). Nothing in Matey et al. suggests that the processing performed by the color separator results in any information that could be used in a "labeling process." All that is detected is whether "at least 1.5% of the field of view of the camera" (column 4, lines 51-52) contains the color blue or green.

For the above reasons, it is submitted that claim 42 patentably distinguishes over Matey et al.

Summary

It is submitted that Matey et al. does not teach or suggest the features of the present claimed invention. Thus, it is submitted that claims 41 and 42, in addition to claim 46, are in a condition suitable for allowance. Reconsideration of the claims and an early Notice of Allowance are earnestly solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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